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Foodgrain Needs in Pakistan

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This week's cover:

Pakistan is working toward self-sufficiency in foodgrains. From top, preparing a rice paddy for planting; buying grain at a retail store; threshing wheat. See story page 5.

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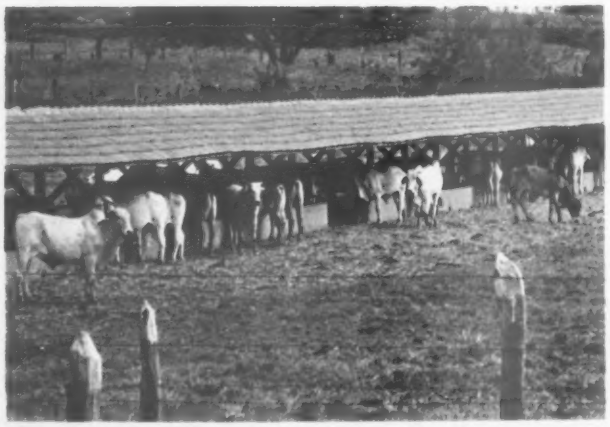
Anthills in the foreground, above, bear witness to how worthless many of Brazil's pastures have become because of the country's voracious ants. One progressive farmer, however, has set up the confinement feedlot pictured below to keep his animals fat when pasture feed is sparse. Few farmers have followed his example of supplemental feeding.



Brazil Begins Needed Pasture Overhaul

By SHACKFORD PITCHER
U.S. Agricultural Officer
Sao Paulo

The vast deterioration of Brazil's pastures, which until recently aroused little concern among ranchers, has become a major threat to the growth of the country's important livestock industry. The livestock and meat industry in Brazil earns more than any other single agricultural enterprise and has been responsible for much of the development of Brazil's hinterland. Some of the country's prime agricultural land as well is planted to pasture. Brazilian ranching rarely has fostered conscientious pasture management, however, and many stockmen now face a shortage of nearby fertile land and have more cattle than their current pastures can feed.

As pastures have become useless from overstocking and pest and weed infiltration, stockmen customarily have moved deeper and deeper into Brazil's rich forestland and cleared it for grazing. Undeveloped land near the settled areas is becoming scarce, however, and some ranchers must relocate their operations 300 to 500 miles or even farther instead of 50 to 100 miles as was true just 20 years ago. Many are finding it expensive and difficult to efficiently manage these distant properties and are turning to improvement measures for pastures once neglected. Government loans, research, and training programs are supporting the ranchers' efforts.

All of the country's three major cattle-raising areas—Rio Grande Do Sul, South Central Brazil (including Paraná, Sao Paulo, Minas Gerais, most of Mato Grosso, and Goiás) and the Northeast—are affected by pasture deterioration. Rio Grande do Sul is probably the best off, since it has good native pastures on open land. Most open land in other states is of poor quality, however, and was bypassed by early settlers because there was plenty of fertile forest land to clear. Since then there has been little incentive for pasture maintenance, particularly since improvements usually cost more than clearing new land.

Forests cleared, pastures planted

Ranchers in South Central Brazil graze their animals on land cleared from forest, much of which still remains. A common and inexpensive method of establishing pastures is to cut trees by hand and leave the stumps to rot. Clearing is usually carried out by contract workers who are permitted to farm the land for 2 or 3 years as compensation.

When the land is ready for pastures, vegetative material—colonial guinea, jaragua, and molasses grass—is set out by hand. In recent years pangolagrass has also been planted. Pastures reach their best carrying capacity 4 to 5 years after planting and then last another few years before beginning to deteriorate. Ranchers in South Central Brazil who are experimenting with pasture improvement have used legumes, valuable for the protein and energy they supply to the cattle particularly during the dry season when the grass is fibrous and usually quite unpalatable. The most widely planted legume is perennial soybean, which also is a source of nitrogen for the rarely fertilized soil.

Not the least of South Central Brazil's pasture problems is the leaf cutting ant, a serious hindrance to Brazil's agriculture since colonial times. There is a saying that "either Brazil will do away with the ants or the ants will do away with Brazil." Exaggerated as this may sound, many hundreds of acres of pasture in the State of Sao Paulo have been left to the ants by ranchers who have found eradication too costly.

The ants (*Atta capiguara*) are so voracious, 10 colonies can consume as much grass as one steer. In infested regions, the number of colonies averages four per acre to pastures 5 to 6 years old, and seven or eight per acre to pastures 10 to 12 years old. Chemical eradication costs about $10 to $15 for eight colonies per acre—a high price for ranchers, a few of whom have tried to control the ants by plowing up pastures and planting crops for several years.

Confinement feeding uncommon

Pasture deterioration has become particularly acute since range feeding is virtually the only means used for fattening animals for meat in Brazil. At this time very few ranchers

Brazilian cattle feed on pastures like the one below, forestland cleared and planted with grass. When grass is scarce, some ranchers feed the cattle cut-up cactus, as pictured at right.

provide feed supplements. Corn, sugarcane tops, oilseed cakes, hay, and grass silage are readily available; and Brazilian farmers generally have an excess of forage produced during the wet season. But so far the need for feed supplement has been largely ignored and virtually none of the farmers put up hay or silage.

There are no commercial feedlots in Brazil and very few ranchers practice confinement feeding. This situation has come about mostly because feeding operations require capital, organization, and substantial managerial abilities—scarce commodities in Brazil. Few ranchers have the facilities for storing grains and making hay and silage and the pens necessary for confinement feeding. Furthermore, the country's current inflation has made loans to install these facilities prohibitively high; and ranchers themselves, instead of using profits for improvements, have invested them elsewhere.

Improvement programs underway

Measures which have been taken to improve pastures in Brazil include a $40-million loan to the Brazilian Government from the International Bank for Reconstruction and Development (World Bank) in 1967. The Brazilian Government has supplemented these funds with $24 million, and various livestock organizations donated another $16 million to finance a livestock development program. A national livestock development council (CONDEP) and regional councils will guide the application of funds (Brazilian and World Bank) through Brazil's Central Bank. Funds will be available to selected ranchers for financing pasture improvement, watering installations, farm machinery, silos, cattle barns, corrals, and other needed facilities. This supervised credit program is in its final organizational stages and loans to ranchers are expected to begin in the next month or two.

Also helping in the effort to boost pasture and livestock productivity is Brazil's IRI Institute which administers agricultural research and extension services. In collaboration with the Brazilian Ministry of Agriculture and the U.S. Agency for International Development (AID), IRI is carrying on research studies in nearly every state in Brazil. Activities include the selection of promising native grasses and legumes, research on the economic feasibility of increasing pasture carrying capacity through fertilizer application, and developing feeding and management systems for beef and dairy cattle. At IRI's training center at Matao, Sao Paulo, Brazilian technicians receive training in extension work and observe field experiments and other center activities.

In addition, six universities in the United States are providing agricultural specialists to work with Brazilian farmers under the Alliance for Progress. An example of their work is the University of Wisconsin's program in cooperation with the University of Rio Grande do Sul. Wisconsin has a team in Rio Grande do Sul training and advising Brazilian technicians on the cultivation of pastures, veterinary science, and animal nutrition.

Brazil: Highlights on Export Commodities

The end of August saw 1968 export prospects on the increase for five out of Brazil's seven major agricultural export items—coffee, sugar, rice, corn, and cotton. For cocoa, however, the export outlook is somewhat below last year's, and for soybeans, it is considerably below.

Brazil's exports of coffee for the first 7 months of 1968 set a 10-year record. For the first 6 months of the year alone, exports totaled 8.7 million bags earning US$366 million, compared with 7.2 million bags earning US$312 million during January-June 1967. According to the president of the Brazilian Coffee Institute (IBC), prospects are that during the International Coffee Organization's coming quota year (October-September), Brazil will fill its annual export quota of 17.9 million bags.

The average f.o.b. export price per bag in 1968 so far has been US$41.60, against a 1967 average of US$43.40. Now that the coffee regions have passed the frost danger period (July-August) without mishap, the average export price per bag will probably remain unchanged until the end of the calendar year. If any change occurs, it is likely to be a downward one, in view of the early outlook for a big coffee crop next year.

Soluble coffee exports during January-May 1968 totaled 5,616 metric tons worth US$11.1 million, compared with 4,111 tons and US$10.7 million in January-May 1967. Average f.o.b. export price per pound of soluble coffee has been US$0.89 in 1968, compared with the 1967 average of US$1.17. But, with the plant accounting for half Brazil's volume idle since May, soluble coffee exports will probably drop below the 1967 total.

Although 1968 international market prices for Brazilian *cocoa beans* and *butter* were significantly higher than those of 1967, prospects are that Brazil's total cocoa export earnings this year may be slightly below last year's because of a sizable drop in production. *Sugar* export earnings, on the other hand, showed an early increase, totaling US$62 million for the period January 1-July 20, 1968, compared with US$42 million during the same period of 1967. This increase resulted from a higher proportion of exports going to the preferential U.S. market; to date, Brazil's total sugar export volume is little changed.

An excellent *cotton* crop in both north and south Brazil has foreshadowed an export level of a little over 200,000 metric tons, compared with 190,000 in 1967 and 236,000 in 1966. High yields resulted in lower prices but good total earnings, and next year's plantings are expected to be up 30 percent in south-central Brazil. *Soybean* exports, however, are expected to be only about 70,000 tons, against 305,000 in 1967 and 121,000 in 1966. What might have been a record soybean crop was prevented by prolonged dry weather in the top producing State, Rio Grande do Sul. This, plus good internal demand, cut export availability to considerably below last year's level.

Exports of both *corn* and *rice* will outdistance their poor 1967 showing. A cruzeiro devaluation August 27 is expected to stimulate end-of-the-year shipments. Rice shipments, currently at a level of about 40,000 tons, are expected to rise to 150-200,000 tons, much more comparable with 1966's 226,000 tons than with last year's 20,000. Corn exports are likely to climb from the present 500,000-ton level to nearly 800,000 tons by the end of 1968—well above not only the 432,000 tons of 1967 but also the 621,000 of 1966.

—Based on a dispatch from JOHN C. MCDONALD
U.S. Agricultural Attaché, Rio de Janeiro

Preview: Foodgrain Needs in Pakistan

By JOHN PARKER, JR.
Foreign Regional Analysis Division, ERS

This is the fifth article in a series (see the April 22 issue) that Foreign Agriculture *is publishing on supply-demand studies for major farm products in key agricultural countries. Each study was conducted under contract between USDA and a country institution using basic data from the country source. Study trends may be more important than quantitative conclusions, and USDA does not always agree with production projections given.*

The study on Pakistan entitled "Long-Term Projections of Supply and Demand for Selected Agricultural Products in Pakistan" was prepared by the Social Sciences Research Center in Lahore. This article and "Pakistanis Eating More Fruit, Vegetables" on page 7 incorporate the findings of the report as well as those of the author on a recent trip to Pakistan.

Pakistan expects to move closer to self-sufficiency in foodgrains in the next few years because of increased production obtained through widespread use of high-yielding seeds, fertilizer, and other modern farm inputs. But the long view continues to include heavy reliance on imports.

The breakthrough now occurring in Pakistan's more progressive farm areas could double the 23-million-ton supply of grain available in 1967-68 to the 46 million tons for 1985 that is currently projected. However, according to the study prepared at Lahore, Pakistan's population is expected to reach 200 million by 1985, up more than 60 percent from the 123 million inhabitants in 1968. While foodgrain needs will temporarily be more nearly met by domestic production, higher incomes (rising from an annual $87 in 1968 to over $200 by 1985) and spreading urbanization will create a larger import market for dairy products, meat, eggs, and various horticultural products that will be permanent.

The study projects Pakistani wheat imports of 1.2 million metric tons in fiscal 1970, a marked decline from the record 2.2 million tons imported during 1967-68. The projections go on to indicate that Pakistan's rapidly growing population and food demands will cause wheat imports to rise gradually in the late 1970's and exceed 4 million tons at some time before 1985. Accelerated technological development may reduce this requirement, but unless extraordinary gains are made, imports of rice—Pakistan's principal commodity—as well as wheat may reach unprecedented levels.

Output and demand for wheat boom

Pakistan's record 1967-68 wheat crop—6.3 million long tons—reflects the recent and continuing high interest in this crop. The area planted to high-yielding varieties of wheat jumped from 250,000 acres in 1966-67 to around 2 million in 1967-68. And this autumn about one-third of Pakistan's wheat fields are expected to be planted to Mexi-Pak.

In 1967 the government accelerated plans for boosting production by importing 42,000 tons of wheat seed from Mexico and distributing record quantities of fertilizer. The effort has proved its worth. This spring some farmers near Lahore harvested over 80 bushels of wheat per acre from the Mexi-Pak variety—quadruple the yields obtained the previous year when traditional varieties were planted. Use of ample fertilizer and irrigation water also contributed to the bumper wheat crop, which soared 45 percent above the 4.4 million tons harvested in 1966-67.

A strong incentive to the intensive wheat farming last year that led to record output was the high price level reached in 1967 following 2 years of drought. This encouraged increased plantings. Adequate rainfall during the winter growing season and increased Mexi-Pak acreage, coupled with increased availability of fertilizer and irrigation water, resulted in a 25-percent increase in yield per acre. Even yields of wheat on nonirrigated fields were up by more than two-thirds over those of the 1966-67 season.

Growing demand, increased imports

Consumption has been increasing faster than the population during the past decade and reached over 6 million tons in 1967. Chiefly responsible for the steep climb has been the increasing number of urban dwellers who have access to American-type bread and a variety of products not available to farmers whose use of wheat is largely restricted to the traditional chapatis. Indicative of the strong demand for wheat are the low stock levels. These developed in 1966 when Pakistan imported only 1.3 million tons of wheat and did not increase appreciably in 1968 despite the record volume of wheat imported in that year. The fiscal 1968 wheat import level reached 2.2 million tons, or more than double as much as the 980,700 imported in 1962. (Shortages of rice in 1967 accelerated the shift to increasing wheat consumption.)

Further complicating the problem is the geography of Pakistan. Pakistan's wheat imports may continue high for some time—despite increased production—because of Pakistan's transportation problem. It will take time to plan and build transportation and storage facilities necessary to get the wheat from major growing areas to those that have been most dependent on imported wheat, primarily residents of the Karachi area and East Pakistan.

Move to modern rice

During the 1967-68 season, farmers in Pakistan planted about 1 million acres of land to improved IRRI rice varieties imported from the Philippines. And for the 1968-69 season, farmers in West Pakistan alone plan to have 1.5 million acres in these varieties. This is 10 percent of the total acreage utilized for rice cultivation. In East Pakistan the area planted to IRRI varieties during 1968-69 is expected to more than triple the 315,000 acres planted during the recent season.

The adverse weather that decreased the 1966-67 rice harvest to only 10.8 million long tons of milled rice acted as a spur to expanded production in the following season. Farmers were eager to accelerate the conversion to heavy use of fertilizer, improved seed, and other inputs. These factors plus heavy monsoon rains pushed 1967-68 output to 12.2 million long tons of milled rice.

The switch by farmers to IRRI-8 has been viewed with concern by basmati rice exporters. To ease their problem the government has increased the minimum purchase price of basmati, an extra-long-grain type of rice, to deter too many farmers from turning to the higher yielding IRRI varieties.

Modern farm inputs

A decade ago Pakistani farmers used less than 10,000 tons of chemical fertilizer on rice, but during 1968-69 the volume demand for such nutrients will reach 200,000 tons. Rice farmers in East Pakistan used 40 percent more fertilizer during spring 1968 than in the preceding year. Price was a strong incentive; farmers bought the fertilizer at half the actual cost to the government. In West Pakistan the advantages of utilizing fertilizer have been so clearly demonstrated that demand is good, and the subsidy has been cut from 50 to 25 percent.

Chemical fertilizer output in Pakistan is scheduled to make greater gains in the next 2 years than in the previous decade. By the end of 1968 the capacity for producing urea in Pakistan is expected to exceed 500,000 tons. The plant near Karachi now has a capacity to produce 170,000 tons of urea, 162,000 of ammonium sulphate, and 183,000 of di-ammonium phosphate annually. Two plants under construction in East Pakistan will have a capacity for producing 170,000 tons of urea annually, and two others able to produce 155,000 of triple superphosphate each are near completion.

From the plants now operating and those under construction, Pakistan should be able to supply most of its fertilizer demands by 1971—demands which are expected to increase steadily. For most of Pakistan's farmers the use of fertilizer is still new, and the average use per acre is low even by Asian standards.

The number of tractors used in Pakistan octupled from 2,300 in 1958 to 19,000 in 1967. Most of Pakistan's demand for tractors this year will continue to be met by imports from the United Kingdom, the United States, and the Soviet Union, although Japanese garden tractors are becoming popular around Dacca.

About 18 million acres of West Pakistan are affected by either salinity or waterlogging—problems that spread to other areas during the monsoon seasons. Five Salinity Control and Reclamation Projects now cover one-third of this area and use tractors and other modern implements to spread gypsum on waterlogged land. Tube wells used for irrigation also reduce soil salinity and waterlogging; the number of tube wells in Pakistan has increased from 4,000 in 1958 to 64,000 in 1967. Yields of 75 to 80 bushels per acre of wheat and hybrid corn, compared with the 17 to 25 normally harvested, were obtained from some of this reclaimed land during the course of the past year.

Government subsidies enable many farmers to use pesticides at relatively little expense, and the supply available has been increasing. New factories near Lahore produce toxaphene and other insecticides for use on cotton, and in 1967 the United States exported over $6 million worth of pesticides to Pakistan. However, more insecticides to control insects attacking rice, corn, citrus fruits, and vegetables are needed. And the locust threat may cause Pakistan to increase insecticide imports this year.

Trade with U.S.

Pakistan was a market for $162.4 million worth of American agricultural commodities in 1967—triple the trade volume of a decade earlier and a record high. Most of this trade was financed under P.L. 480, but strictly commercial sales for dollars topped the $20-million mark for the first time.

Wheat accounted for over 70 percent of the total. But American exports of soybean oil, tallow, dairy products, and tobacco to Pakistan have grown during the last decade. Over half of Pakistan's record fertilizer imports in fiscal 1966 were supplied by the United States. As Pakistan's exports of manufactured items and agricultural products expand, cash purchases from the United States are likely to increase. Higher incomes in Pakistan could cause commercial imports of American products to increase beyond the record level attained in 1967.

Pakistan: Pertinent Trade Data

The value of Pakistan's agricultural imports reached its highest level since 1963 last year, while agricultural exports sank below levels of the preceding 4 years.

Comparison of the two import tables that follow indicates the relatively steady supply position of the United States, which has been holding roughly three-fifths of totals in recent years.

PAKISTAN'S AGRICULTURAL TRADE

Item	1963	1964	1965	1966	19
	Mil. dol.	*Mil. dol.*	*Mil. dol.*	*Mil. dol.*	*Mi do*
IMPORTS					
Wheat	106.6	130.8	116.3	63.8	14
Rice	32.5	9.8	6.6	11.1	1
Corn	.3	.1	—	—	
Other cereals and prep.	.1	4.4	.8	.8	
Total cereals and prep.	139.5	145.1	123.7	75.7	17
Vegetable oils	35.8	22.6	41.9	34.2	2
Tallow and animal oils	6.0	6.3	8.0	7.1	
Fruits and vegetables	8.7	7.2	9.1	10.8	
Natural fibers	8.1	7.4	6.0	6.7	
Natural rubber	3.4	4.8	4.0	4.7	
Tea	.2	.7	.3	.4	
Dairy products and eggs	5.7	4.2	4.3	1.4	
Tobacco	1.5	4.4	1.2	1.9	
Other	2.1	18.4	25.7	13.5	1
Total agricultural	211.0	221.1	224.2	156.4	25
EXPORTS					
Cereals	24.8	26.1	24.8	42.0	3
Fruits and vegetables	1.0	1.8	3.6	1.7	
Sugar	1.3	2.7	.7	1.7	
Animal feed	5.0	4.2	4.2	0.5	
Tobacco	.1	.4	.1	.4	
Hides and skins	12.3	9.1	7.9	3.7	
Natural fibers	275.9	256.1	262.8	236.0	24
Crude materials	4.2	5.7	6.5	7.0	
Other	1.9	2.3	4.4	8.0	1
Total agricultural	326.5	308.4	315.0	307.0	30
Total agricultural and nonagricultural	416.4	493.6	528.2	601.8	56

U.S. AGRICULTURAL EXPORTS TO PAKISTAN

Commodity	1963	1964	1965	1966	19
	Mil. dol.	*Mil. dol.*	*Mil. dol.*	*Mil. dol.*	*Mi do*
Wheat	121	107	91.9	89	11
Feedgrains	.3	—	—	—	
Vegetable oils	28.7	25.5	32.6	8.3	1
Tallow	4.3	5.6	3	2.5	
Dairy products	3.5	3.9	3	.7	
Tobacco	2.3	3	2	3	
Cotton	2.6	1.8	2.9	3	
Other	2.1	1.3	3	1	
Total	164.9	149.1	135.4	104.5	13

Pakistanis Eating More Fruits and Vegetables

After several years of crop failures and other setbacks, Pakistan is beginning to show economic progress and the buying power that goes along with it. One sign of these better times is the increasing demand for fruits and vegetables—once seldom seen in the marketplace, but now available in abundance and variety.

Demand for fruits and vegetables in Pakistan is expected to approach 11 million metric tons by 1980, according to the study recently completed by the Social Sciences Research Center in Lahore. This will be more than double the 5.2 million tons of major fruits and vegetables consumed in 1965.

Pakistan's emerging market for these products means increased activity on two fronts—in domestic production and in trade. At home, growing output of numerous products—from onions to oranges—is helping to partly meet consumers' expanding requirements and in some cases to earn foreign exchange. Still, according to the study, demand for the products will grow faster than supply, and imports may increase to more than 3 million tons by 1980.

West Pakistan's production, trade

In West Pakistan, a far-reaching expansion is taking place in vegetable production. Availability of irrigation water during the dry spring season and use of high-yielding early maturing varieties of wheat will allow farmers from Jhelum to Lahore to grow a crop of vegetables on land once devoted to grains. In the northern part of the country, a marked expansion occurred during the last two winters in production of onions, turnips, and leafy vegetables. And in the irrigated areas of the Indus Basin more melons, tomatoes, and egg plant are being grown during the summer.

Fruit production is seeing similar growth. Farmers near Peshawar and Quetta have planted new orchards of peach, plum, and pear trees in the past 5 years, and those in the Murree Hills near Rawalpindi have planted many new apple orchards. Production of oranges in West Pakistan has doubled in the past 8 years as young orchards near Multan and Sargodha have come into production. Farmers are now planting almond and olive orchards on some hillsides from Rawalpindi to Peshawar and plan extensive plantings of walnuts and almonds on newly irrigated land after completion of the Tarbela Dam. Also, the country is now producing about 100,000 tons of dates in dry irrigated areas between Karachi and Mekran.

Production of tropical products is generally limited to East Pakistan; however, the shortage of fresh bananas and mangoes in West Pakistan has led to extensive plantings of these fruits in the Sind around Hyderabad.

Farmers' marketing cooperatives in West Pakistan have found ready sales for most of their products among the small shops in growing urban centers. Although they do not need to seek export markets, these cooperatives have also been attracted by the 30-percent bonus for exports of some horticultural items. As a result, Pakistan's exports of fruits and vegetables have doubled since 1965 to a little below $4 million annually. And trade experts and horticulturists feel that this total will be raised to $40 million by 1980.

Recently, Pakistan sold some oranges, bananas, pears, and canned fruit to Kuwait and the oil centers of the Arabian Peninsula. Sales of fresh pears to Hong Kong and Singapore now exceed $200,000 annually, and exports of onions and leafy vegetables during the winter to the Middle East are in the beginning stages. Also, the opening of a new paved road through the Khyber Pass will enable West Pakistan to send fruit products and winter vegetables to the Middle East and the USSR, including about $500,000 worth of orange juice to the USSR this year.

On the import side, Afghanistan plans to use this road to send about 50,000 to 75,000 tons of fresh fruit, mostly grapes, to West Pakistan annually. Imports of grapes and raisins from that country have risen sharply, with those of grapes totaling 27,184 tons in 1965 compared with 4,170 in 1963.

East Pakistan's production

In East Pakistan, commercial production of vegetables has become a new source of income for many rice and jute growers. Production of potatoes has doubled in the last 3 years, and that of sweetpotatoes has also risen sharply; in 1967-68, East Pakistan produced 625,000 and 730,000 tons, respectively, of these two crops. Tomatoes and melons accounted for a large part of the 850,000 tons of other vegetables produced in East Pakistan that season.

Output of tropical products is also expanding in East Pakistan, which already grows about 90 percent of Pakistan's bananas and 70 percent of its mangoes. This area has a heavy concentration of mango orchards near the border with West Bengal and is developing pineapple plantations in the Chittagong Hills. Canneries for these products are to be expanded to accommodate production gains.

The difference in production capabilities between the two wings of Pakistan has made possible a complementary trade in fruits. East Pakistan ships canned tropical fruits and bananas to West Pakistan in exchange for canned deciduous fruits, almonds, and walnuts.

Chilean Crop Reports Revamped

Sections of Chile's Ministries of Agriculture and Economy have signed an agreement to combine their forces for better efficiency and quality in obtaining agricultural statistics and estimates. The special task force will use personnel, equipment, and financing from both Ministries.

The new working group will provide annual forecasts and estimates on crop production, intentions to plant, and area harvested of peas, rice, oats, hemp, barley, onions, rye, beans, lentils, flaxseed, corn, sunflowers, potatoes, rapeseed, tobacco, and wheat. Statistics will also be given on cattle, sheep, swine, poultry, and the products of each.

The work will be under the supervision of the Director of Statistics and Census of the Ministry of Economy. The main offices of the new group will be in Santiago. Most of the technical personnel, as well as much of the mechanical equipment and the base census information, will be furnished by Statistics and Census; but the Agricultural and Livestock Service of the Ministry of Agriculture will also supply trained personnel and equipment and will be responsible for continuing to provide the type of agricultural statistics they have collected in the past.

New Financing and Programs—

South America Escalates War on Foot-and-Mouth Disease

Countries in South America are going to intensify their efforts to prevent and control foot-and-mouth disease and eventually to eradicate it from the continent. The new surge in the campaign against the disease is backed by a policy of financial support by the Inter-American Bank. The Bank will assist countries that have or plan nationwide programs and facilities for livestock vaccination, for adequate sanitary controls, and for other facets of disease prevention and elimination.

Loans have already been extended to Chile and Paraguay for US$2.3 million and $2.8 million, respectively. Loan requests totaling approximately $30 million are in advanced stages of preparation by Argentina, Brazil, Peru, and Uruguay. Bolivia and Ecuador may also request loans.

Programs will be carried out in each country by a national agency in cooperation with the country's ranchers and with the Pan American Foot-and-Mouth Disease Center in Rio de Janeiro, an affiliate of the Pan American Health Organization (PAHO). The Pan American Foot-and-Mouth Disease Center devotes over $1 million annually to research and gives advanced training to specialists. PAHO provides technical assistance and training for veterinarians.

Paraguay's attack on the disease will be conducted by the Servicio Nacional de Lucha contra le Fiebre Aftosa (SENALFA), a government agency. The first stage in the campaign is expected to take 4 years. By systematic and periodic vaccination of all livestock and the application of adequate sanitary control methods, the proportion of the livestock population affected by the disease should be reduced from between 25 and 50 percent to about 5 percent. The second stage will be complete elimination of the disease from Paraguay, which might take 15 to 20 years.

Chile will combat the disease by means of an independent agency, Servicio Agricola y Ganadero (SAG), which works closely with Chile's Ministry of Agriculture. During a 5-year initial period in the timetable for disease elimination, about 2.5 million head of livestock will be vaccinated against foot-and-mouth disease at least three times each year. During this intensive phase of the plan, some 38 million doses of vaccine will be used.

Chile's program should reduce the livestock death rate, improve dairy production, improve weights of beef cattle, and increase fertility of livestock.

In addition, Argentina, Brazil, Chile, Paraguay, and Uruguay have established a Regional Technical Commission of Animal Health to unify their efforts and policies with respect to livestock diseases. Peru may join the Commission in the near future. Members have agreed to export only livestock that has been vaccinated or revaccinated during a 15-day period before shipment, to establish standards for vaccine production and control, and to exchange technical information and research findings.

At present foot-and-mouth disease causes livestock losses estimated at $400 million a year in South America—not counting lost sales by meat-exporting countries where the disease is in evidence.

Paraguay, for example, derives from livestock about 11 percent of its gross national product and nearly one-third of the value of its exports. Of the approximately 6 million head of cattle in the country in 1966, between 25 and 50 percent were affected by foot-and-mouth disease.

Chile, the other country for which a loan has been announced, has long been suffering from severe beef and dairy-product shortages. Livestock numbers have been nearly static during the last decade partly because of foot-and-mouth disease, which is endemic in all but the southernmost part of the country. About 8 percent of all livestock is infected. In 1967 Chileans imported about $36-million worth of dairy goods and beef.

South Africa Exports Despite Smaller Crops

Although South Africa's 1968 harvests (May-June) of corn and grain sorghum are down sharply from last year, the record crops and official purchases of both commodities in 1967 have created large export surpluses and have seriously depleted the stabilization funds used for price support. The Maize Board, which handles both corn and grain sorghum, is expecting a deficit of about US$5.5 million by the end of the 1968-69 marketing year. The South African Government has agreed to lend this amount to the Board.

So far, the chief export customers for South Africa's corn and grain sorghum have been Japan and the United Kingdom, with Japan the largest buyer.

The 1968 corn crop is estimated at 5.5 million metric tons—only 57.1 percent of last year's record harvest. Still, the 1968 crop is above average for recent years. Part of the reason for the relatively large output was increased area—6.7 percent more on European farms than last year. The total area planted to corn was about 13.4 million acres.

The 1968 crop of grain sorghum is a comparative failure—only 29 percent of the 1967 harvest, or 245,000 tons. In addition, the quality of the harvested crop is down, and some does not meet minimum grade standards. Two factors operated to decrease the sorghum harvest. First, the area under sorghum on European farms was 58.7 percent less in 1968 than in 1967, or about 656,000 acres. Second, drought during January and February in growing areas decreased yields and qualities.

The Maize Board has had a program for several years of trying to induce manufacturers of mixed feed rations to substitute grain sorghum for yellow corn. The program has been somewhat successful in that it has increased the consumption of sorghum in animal feeds—but at the expense of a subsidy by the Maize Board to manufacturers.

The Board has recently increased the support price for grain sorghum, decreased the price of white corn slightly, and left the price of yellow corn unchanged. For the 1968-69 marketing year, yellow and white corn and grain sorghum are all the same price—US$4.62 per 200-pound bag.

—Based on dispatch by HARRY C. VARNEY
U.S. Agricultural Attaché, Pretoria

Progress report on—

Drive To Export More U.S. Farm Products

Last month, A. R. DeFelice, Assistant Administrator for International Trade, Foreign Agricultural Service, outlined prospects for U.S. agricultural exports at the Agricultural Export Seminar, Houston Chamber of Commerce, Houston.

Mr. DeFelice reviewed the $1-billion-a-year contributions farm exports have been making to U.S. balance of payments in the past 4 years and scouted possibilities for continuing the upward export push during the current fiscal year. He reviewed the two major factors that have accounted for the strength of U.S. farm exports in recent years—economic growth around the world and joint government-industry development of foreign markets, then focused on these market-development activities as they relate to Texas products. His examination of these activities is excerpted below.

This joint government-industry drive to enlarge the foreign market for our farm products stands out in my opinion as one of the most significant agricultural trade developments of this period. All the important commodities produced in Texas are represented in this promotion work, including cotton, wheat, rice, feedgrains, poultry, peanuts, processed foods, purebred livestock, hides and skins, and tallow.

An overall effort

Trade fairs continue to be a prime means of reaching consumers and the trade. Since 1955 the U.S. Department of Agriculture has sponsored over 200 exhibits of food and agricultural products in almost 40 countries. Among the major cities in which the United States exhibits its farm products frequently are London, Paris, Munich, Cologne, Brussels, Milan, and Tokyo. This past April one of the biggest agricultural trade fairs ever sponsored by this country was staged at Tokyo, and we look for some increased sales from it, especially of processed foods.

Trade Centers at Tokyo, London, and Milan provide a year-round "showcase" for intensive export promotion of food and farm products.

Special in-store promotions in cooperation with large retail organizations abroad also are proving an increasingly effective technique, particularly in building exports of U.S. processed foods. Some of these promotions are held in connection with trade fair and trade center events; others are arranged independently.

Last fall we began to use a new market-development tool—the trade mission. Trade teams, which went out during the fall, winter, and spring on behalf of all major export commodities, are fully representative of the U.S. production and export trade system. They usually include a producer of the commodity involved, a market-development cooperator representative, a private trade representative, and a USDA specialist. They make their pitch for expanded trade in the countries where we are trying to sell, and to the key people who call the shots on what those countries buy. In the process they build good will for our products and our country.

To date trade missions have visited many countries of Western Europe, Eastern Europe, the Mediterranean, the Middle East, the Far East, Latin America. Team leaders report very encouraging results.

The overall effort to promote foreign markets obviously is paying off. We see this in the form of increased sales—or in the maintenance of sales volume that would have otherwise declined.

Success with rice

Rice, one of your leading Texas-produced commodities, is a good example of what can be done through determined promotion effort.

The Rice Council for Market Development, which cooperates with the Foreign Agricultural Service in market-promotion work, has been carrying on a vigorous mass media advertising campaign in Western Europe and South Africa. Major U.S. rice marketing firms are backing up this program with brand-name advertising. Other forms of promotion, such as demonstrations at trade fairs, round out the overall effort.

In Western Europe sales of U.S. rice increased from 2.8 million bags to 5.2 million bags between 1961 and 1967. In South Africa sales over this period rose from 780,000 bags to 1.5 million bags—just about double.

Large new markets are being uncovered. For example, the largest single export sale of rice in U.S. history was made earlier this year when we sold 5.3 million bags to South Korea. It was a cash transaction, too—the kind of a deal that contributes to our balance of payments.

The export outlook for rice in this current 1968-69 year is dominated in considerable part by the supply situation in the United States and competing areas. We know about the U.S. crop. The July crop report estimated a new record U.S. production of 110 million hundredweight of rough rice—23 percent above last year's record harvest. We don't know as much, of course, about foreign production, but the outlook appears to be offsetting, in part. Production in Thailand and Burma, which will be harvesting in October and November, can be expected, with normal weather, to resume its upward trend. The first Red Chinese rice crop probably will be down somewhat from last year's harvest. Floods are reported to have damaged rice in south and east China. Also, disruptions last winter and spring caused by the continuing "cultural revolution" plus unfavorable weather at planting time, meant that some farmwork was neglected and that some Chinese rice production was lost. (Editor's note: Since Mr. DeFelice made this speech, drought has damaged the rice crop in South Korea.)

In the last few months world market prices of rice have dropped off from the high levels reached in February. But there should be no serious problems in moving U.S. rice into world trade. The Department of Agriculture, you may be sure, is doing all it can to assure orderly exporting of the big 1968 rice crop.

Exporting more sorghum

Market promotion of grain sorghums, carried on jointly by the U.S. Feed Grains Council and FAS, has done much to expand exports of this major Texas commodity. Since this work began in 1960, exports of grain sorghums to Western

Europe have risen modestly but steadily. But the increase in exports to Japan has been little short of phenomenal, rising from only 6 million bushels in fiscal year 1961 to a record 95 million bushels in 1967.

Back of these gains lies much effort, such as consultant work with educators on animal nutrition, seminars and feeding demonstrations for feed compounders, and technical feeding meetings at the local level. In 1963 we conducted a short-term seminar at Oklahoma State University for 40 top feed compounders and animal nutritionists from Japan. These men continue to preach the U.S. feed gospel in their country.

Total grain sorghum exports hit a peak of 280 million bushels in fiscal 1967. But shipments in fiscal 1968, both commercial and concessional, dropped off to 173 million bushels. We exported less to all our major customers. This decline traces to two factors—a relatively unfavorable export price situation and a changing picture with respect to concessional sales.

Prices of grain sorghums traditionally are below those of corn. This year, however, for an extended period corn prices, due to last fall's large crop and quality problems, were below sorghum prices. Corn prices have been unusually low. Corn, therefore, has been attractive to foreign buyers, and grain sorghum exports have suffered. The corn-sorghum price relationship has recently reverted to a more normal pattern and export demand for sorghum may improve as a result.

Meeting wheat goals

For wheat, the Department of Agriculture last year set an export goal of 750 million bushels for fiscal 1968. Our exports of wheat and products amounted to 763 million bushels.

The market promotion work carried on by FAS, in cooperation with Great Plains Wheat and Western Wheat Associates, played a part in this result. But a great many other groups also helped—co-ops, port authorities, extension services, and individuals, like those of you in this room, who have an abiding notion that American agriculture needs a strong, positive export program.

Our work is cut out for us in 1968-69. Achieving an export level of the magnitude of last year will be a very difficult exercise. Most exporting nations—and many importing countries—have larger supplies than last year. The major exporters—the United States, Canada, Australia, Argentina, and France—were estimated to have exportable supplies on June 30 some 235 million bushels larger than a year earlier. In addition, the exporting countries probably will have better than average harvests this year.

India and Pakistan, the major foreign aid recipients, have record food grain crops. It is still too early to tell whether the Soviet Union and Mainland China will require larger quantities of wheat than they imported last year. Both have had unfavorable weather to date, but whether bad weather will continue, and whether it will materially affect crop outturns, are matters that we cannot make judgments on as yet. World wheat trade declined 5 percent in 1967-68 from 2.1 billion bushels a year earlier, and is not likely to increase from last year's level in 1968-69.

Cotton a special problem

On cotton, we also have our work cut out for us.

Ten years ago U.S. cotton exports averaged 5.1 million bales, which was almost 25 percent of average foreign Free World consumption of about 20.6 million bales. In recent years, however, U.S. exports have averaged about 4 million bales, while foreign Free World use has risen to 25 million. Our share of the market, therefore, is down from 25 percent to less than 16 percent.

Exports in fiscal 1968 totaled 4.1 million bales, down somewhat from the 4.6 million shipped the previous year. We will be doing well in fiscal 1969 if we even equal the level of fiscal 1968.

We are getting competition from two directions on cotton.

We are getting increased competition from manmade fiber production. Foreign Free World output moved up from a 1955-59 average of 9.9 million bales (equivalent) to something like 22.7 million in 1967. Western Europe currently accounts for about 60 percent of foreign Free World production and Japan about 30 percent. But wherever it is produced, the manmade product causes trouble for cotton.

We are also getting competition from a number of small countries that have stepped up their cotton exports. These include Guatemala, Nicaragua, Chad, Tanzania, Turkey, and Iran. In addition, a not-so-small country, the Soviet Union, is exporting more cotton to the Free World.

Another factor in the outlook is the U.S. supply. Our 1967 cotton crop was only 7.4 million bales, the smallest since 1895. An unusually late crop, much plagued by adverse weather from seeding time to harvest, was further reduced by late freezes. The 1966 crop of 9.6 million bales also was well below average. Our cotton carryover on August 1, 1968, was around 6.8 million bales—the smallest since 1953. So the size of the 1968 crop is a key factor in the cotton outlook at this time. (Editor's note: The August 1968 estimate was for a crop of almost 11 million bales.)

The old supply-demand laws still function. Small supplies have meant increased prices for U.S. cotton, especially cotton of the longer staple lengths. Although the average spot market price for upland cotton has trended downward since December 1967, prices for most qualities remained above those of a year earlier. This is a situation that favors the competitors of U.S. cotton—both the manmade fibers and foreign producers of cotton.

In view of the situation, we have stepped up our effort to maintain—and expand if we can—our market for cotton. Since early in 1966, FAS has been carrying on a cotton-export-expansion program largely through the International Institute for Cotton. The IIC represents several major cotton countries—India, Mexico, Spain, Tanzania, Uganda, Greece, and the United States—which account in the aggregate for over a third of the world's cotton exports. The IIC operates projects in Western Europe and Japan, with the financial and other support of trade and industry groups in those countries. The program includes technical research and surveys, as well as sales promotion, market research, and public information and education on cotton.

In conclusion, Mr. DeFelice summarized the export outlook for farm products this way: 1. The economic situation abroad generally favors a continued uptrend in farm shipments, though trouble spots have appeared. 2. We are capitalizing on that situation with our market development program—a program that is being continually revised and strengthened. 3. We are continuing to work for liberal trade in the firm belief that that is the direction in which our long-range best interests lie.

Health-Minded Britons Reduce Daily Calorie Intake

The daily energy value of the average Briton's food intake dropped 70 calories to 3,080 in 1967—the lowest level since 1952. Carbohydrate intake—chiefly cereals—fell considerably. Animal protein consumption scored a record high, but that of vegetable protein declined.

Butter consumption last year reached a postwar record of 20.5 pounds per head—0.5 pound higher than in 1966 and 0.3 above the previous postwar peak in 1962. This butter intake level, however, is still 4.2 pounds lower than in prewar years. Margarine consumption again declined but was still 3 pounds higher than before the war.

Overall per capita meat consumption increased 1.9 pounds in 1967, aided by the sharp uptrend in poultry consumption which continued last year. During 1957-67, intake jumped 130 percent, and last year it was 3½ times as high as in 1934-39. Poultry meat consumption totaled 18.1 pounds per person, 0.7 pound higher than in 1966.

Very heavy marketings in late summer and early autumn were responsible for increasing bone-in beef consumption to 45 pounds. This is still 8.2 pounds below prewar levels. Owing to a fall in frozen boneless beef imports last year, consumption dropped 1.3 pounds to 2.7. There was a 0.3-pound increase in mutton and lamb consumption to 23.7 pounds and a 0.2-pound increase in offal consumption.

Last year's shortage of pigs in the United Kingdom caused a 1.8-pound decline in fresh pork consumption to 22.6 and in the intake of bacon and ham, which declined 0.5 pound to 24.5 pounds (actual weight). This brought fresh pork consumption 84 percent above prewar levels, but bacon 7 percent lower than in 1934-39.

After 3 fairly steady years, egg consumption in 1967 rose to a total shell egg equivalent of 35.3 pounds per head—one pound above that of 1966 and 7 pounds higher than in prewar days. Consumption of eggs in the shell increased 0.6 pound to 32.2 and the shell-egg equivalent of egg products by 0.4 pound to 3.1.

Both coffee and tea consumption increased in 1967. Intake of tea had fallen in the 2 previous years, but last year it reversed the trend by showing a rise of 0.4 pound to 9.1. Coffee consumption increased by 0.2 pound to 3.1 (bean equivalent)—a record.

Fresh and processed fruit consumption fell 6.5 pounds (fresh equivalent) to 115.9, the lowest level since 1958. Britain's disastrous harvest of deciduous fruit and the closure of the Suez Canal were chiefly responsible. Consumption of canned fruits increased a little, but that of fruit juice was steady at the 1966 level.

A record low was registered for wheat flour intake. Consumption declined 6 pounds to 147.1, 47.4 pounds below prewar levels. Rice consumption fell 0.4 pound to only 2.2 per head. Intake of rice has dropped by almost 1 pound per head since 1965.

For dairy products overall, 1967 figures were roughly the same as those of the preceding year. Total intake per head on a milk solids basis was 0.1 pound lower than in 1966 and amounted to 56.3 pounds, a figure 47 percent higher than the 1934-39 average. Skim milk powder and sweetened full-cream condensed milk represented the bulk of the decrease, falling from 2.6 to 2.3 pounds, and from 1.4 to 1.1, respectively. Liquid milk consumption, falling a slight 0.1 pound to 322.4, was still almost 50 percent higher than in 1934-39.

Potato consumption registered a slight increase of 0.4 pound to 225.5 pounds per head—35.5 above prewar averages. Most of the increase was in processed potato products. The marked rise in consumption of frozen vegetables, particularly peas, is almost entirely responsible for the upward movement in U.K. vegetable consumption in recent years—to a level 17.4 pounds (fresh equivalent) higher than in 1934-39. Consumption of cabbage and similar types of vegetables has fallen by a quarter since before World War II.

From dispatch by DAVID L. HUME
U.S. Agricultural Attaché, London

Italy's Prosperity Reflected in Diet

The Italian diet continues to improve and Italians continue to pay high prices for this good living. Yet the 41.2 percent spent for food and beverages in 1967 was a record low proportion of total consumer expenditures for Italy.

More Italians are eating well and some of them very well. However, more and more ladies are eating less, in accord with the instructions of a growing number of women's magazines. Conversely, this means an increasingly robust portion for the male, because the calorie total per day is still climbing—reaching 2,907 in 1967.

More startling than total caloric intake is the sharp increase in that of animal protein, up 6.9 percent over 1966 and a whopping 66 percent over 1950. A peculiarity in protein consumption shows in the overall decrease from 1950, owing to a sharp drop in vegetable protein—mostly in legumes. Consumption of fats has leaped from 1950 levels, but at 3.2 ounces is still well below the U.S. average of over 5 per day.

That the Italian has no intention of giving up his pasta in any of its literally hundreds of different culinary forms is evident. Of approximately $18 billion going for food and beverages, nearly $2.5 billion were spent on bread and pasta products coming from some 9 million tons of wheat. This is a slight increase over the previous year and roughly twice U.S. per capita intake.

More lira were spent on meat (much of it imported) in 1967. In fact, substantially more was spent on everything except fats and oils, an exception presumably due to the Common Market's direct subsidy to producers allowing seed oil prices to remain relatively low. Highly competitive prices pushed seed oil consumption over that of olive oil (8 liters to 7) for the first time ever.

The 6.7-percent increase in food and beverage expenditures over those of 1966 was less than the 8.8-percent increase in total consumer expenditures. Transportation costs were among the sharpest of other increases. The amount expended on private cars jumped 25 percent and the total for transport rose 18 percent. Italians going abroad were estimated to have spent 14 percent more than in 1966 and those staying home, 14 percent more on health and 9 percent more on clothing. These figures are all indicators of a more prosperous Italy—a prosperity that is currently expected to continue. Judging from the half-year gross national product, 1968 will be up about 5 percent over 1966.

From dispatch by ROBERT C. TETRO
U.S. Agricultural Attaché, Rome

Japan—Best U.S. Soybean Market and Still Growing

The following article is based on a speech given by Scott Sawyers of the American Soybean Association at ASA's 48th Annual Meeting last month.

Over the past 10 years Japan has been our best buyer of soybeans. Japan has purchased soybeans from us because the United States has been the best source from the point of view of dollar costs and two-way trade. The determining factor in the soybean trade has been availability and world price.

Japan's imports of all agricultural commodities in the last 5 years have averaged about one-third of its total imports in value. At the same time, U.S. agricultural commodities have accounted for about one-third of all Japan's agricultural imports. In calendar 1967 Japan bought over $1 billion of U.S. commodities (basis landed value Japan).

Soybeans, the No. 1 commodity exported to Japan, rang up almost one-fourth of this figure, or more than $220 million. From September 1967 to July 1968 the United States has exported to Japan some 1.9 million metric tons of soybeans, 377,000 tons more than for the same period a year earlier.

Why more purchases

This jump in imports has occurred for a number of reasons. The Japanese economy has continued to grow and the population continues to show preference for more and better foods. The swine industry, which uses soybeans for feed, has resumed growth after market adjustments in 1966 and early 1967. And the poultry industry—stricken by severe disease problems in 1966 and 1967—has now resumed a normal growth pattern.

Imports of soybeans were facilitated during the recent GATT negotiations when Japan agreed to reduce its soybean import tariff from a 13 percent ad valorem equivalent down to a 6½ percent equivalent. The 50-percent reduction will be staged over a 5-year period ending January 1972.

The chief target in promoting U.S. soybeans, therefore, has been the consumer. It does little good to solicit the importers, manufacturers, and dealers if homemakers are not buying more. Soybean promotion has been concentrated in mass media and consumer campaigns to encourage use of oil, margarine, and traditional foods prepared from whole soybeans and meal. In Japan soybeans and soybean meal are used in such foods as miso, tofu, soy sauce, and others. Soybean oil is used as a liquid cooking oil, highly refined for tempura oil, as a salad oil, and in vegetable oil margarine. Also, the growing preference for meat, milk, and eggs means increased use of soybean meal to support livestock.

Predictions for 1976

The Japanese estimate their total consumption of meat, milk, soybeans, and fruit will more than double by 1976. The intake of green vegetables, eggs, sugar and fats and oils is expected to increase more than 50 percent during this time. These calculations assume some population increase, of course, but also are based on the trends that individual expenditures for consumption will continue to rise 8 percent annually.

What does this mean to the U.S. soybean producer? On a nationwide basis, one more pound of per capita soybean oil consumption—in any form—would represent the yield from nearly 9 million bushels of beans.

Japan expects to need nearly 3.8 million metric tons of soybeans to satisfy its requirements by 1976. So there is considerable potential for expansion in the Japanese market in the next few years. The bulk of this demand will have to be met by imports. If the United States can maintain 80-85 percent of this import requirement then it is reasonable to feel that U.S. soybean exports to Japan could nearly double in volume in the next few years.

Soybeans to Asia

Two Asian buyers of American soybeans have emerged in recent years—the Republic of China (Taiwan) and South Korea—both of which import beans to supplement local supplies.

Taiwan's purchases of U.S. soybeans doubled to 312,000 metric tons after its 1967 import liberalization. In 1968 this import figure could reach 320,000. Most of the increase in soybean imports would be for consumer products, but purchase of soybean meal for feed are likely to show some increases as well. The country is on a campaign to double the output of its swine industry in the next 2 or 3 years.

South Korea, although not now a large buyer of U.S. soybeans (21,000 tons in 1967), also shows some indications of future growth. The South Korean Government has moved away from efforts for self-sufficiency and has become more dependent on imports. The country could be in the market for some 70,000 tons of soybeans this year depending on weather conditions and its continued ability to improve its foreign exchange situation.

First U.S. Agricultural Attache to Taiwan

Unusually rapid economic growth in the past decade has moved the Republic of China (Taiwan) into the mainstream of world agricultural trade and made it an important cash customer for several American agricultural commodities. Because of these developments, the Foreign Agricultural Service this fall is opening a post for a U.S. agricultural attaché at the American Embassy in the Republic.

The agricultural attaché to Taipei will have the responsibility for reporting significant developments affecting the production, use, and trade of farm commodities in Taiwan and work towards expanding U.S. agricultural exports to the Republic. He also will be a key figure in implementing U.S. Department of Agriculture programs including P.L. 480, barter, and Commodity Credit Corporation sales.

Norman J. Pettipaw, formerly U.S. Agricultural Attaché in Tel Aviv and in Djakarta, has been assigned to the post and will assume duties in October.

Taiwan's progress has boosted per capita income steadily since the 1950's. Vigorous programs are underway to promote the country's exports—both industrial and agricultural—and to encourage domestic and foreign investment. As incomes rise, food preferences are changing from starches and staples to processed and protein foods. Imports are fairly substantial and include cotton, wheat, and soybeans—top U.S. exports to Taiwan—dairy products, tobacco, rubber, and animal fats.

U.S. agricultural exports for dollars to Taiwan in 1967 totaled $82 million and those under government programs, $22 million, compared with $2 million and $58 million, respectively, in 1955.

Japan Is in the Market for Quality U.S. Beef

Five Japanese meat specialists sampled U.S. Prime and Choice beef in several American cities last month and described it as "superb," "tender and good tasting." Their enthusiasm for the meat was good news to the American meat industry. Japan has recently become interested in importing U.S. Choice beef—first as a prestige item for the carriage trade and perhaps later for retail sales. The specialists were here as guests of the Foreign Agricultural Service to familiarize themselves with the livestock and meat industry.

Quotas and prices

Enthusiasm alone, however, will not be sufficient to gain a sizable market for U.S. beef in Japan as long as tight quota lids are maintained on meat imports. Last year Japan imported its full quota of 19,000 metric tons of beef—70 percent from Australia and the rest from New Zealand, mostly low-priced, low-quality cuts.

The Japanese propose a quota of 20,000 tons for 1968-69, which is still far below the import level that demand alone would establish. American meat exporters can expect stiff competition for even a small share of the market.

Another problem is price. Trans-Pacific shipping, a 25-percent import tariff, and multiple handling in Japan's complex distribution system will push the price of U.S. Choice beef for the Japanese restaurant buyer to several times that which his American counterpart pays. However, U.S. beef will still be priced below locally produced beef.

There is still optimism for a small-volume trade. While beef is not commonly eaten by the Japanese people, whose diet traditionally has leaned heavily to rice and seafoods, more and more are buying beef to eat western-style or in Japanese dishes such as sukiyaki. This reflects the country's growing affluency and interest in nutrition. Local herds supply a limited amount of beef for the retail market, but consumer demand will require substantial imports for some time to come.

Many Japanese are dissatisfied with the quality of imported meat they have been getting. They want higher quality cuts, even at high prices. Restaurants and hotels are now serving Japan's famous "Kobe" beef, but the supply is far short of the demand.

The five-man team of meat specialists with their interpreter, far left, look over quality cuts of U.S. beef in Nebraska. (Photo courtesy Omaha World-Herald)

Tried meat at trade fair

Japanese meat specialists invited to USDA's American Festival trade fair in Tokyo last April were introduced to U.S. Choice beef cuts at the Colorado State exhibit. They tried the beef and were most pleased with its tenderness and flavor, commenting "This is nice meat." But they added, "It's too bad you can't supply much of it."

To clear up this misconception, the Foreign Agricultural Service brought the Japanese trade team to the United States this summer. Members represented the All Japan Meat Trade Association, the Japanese Government, and restaurant and hotel purveyors. They traveled through the States of Washington, Oregon, California, Colorado, Kansas, Nebraska, and New York observing all segments of the U.S. meat industry—feedlots, meat packing and processing plants, stockyards, fabricators, and beef boning establishments. At the end of their tour the beef shoppers were solidly sold on the dependable availability of American beef for their restaurants and hotels.

Most were surprised at the massiveness of the U.S. meat industry and expressed pleasure at the consistent high quality of the beef.

Denji Ogawa, chairman of the All Japan Meat Trade Association, had this to say after the Nebraska tour. "The beef in the United States is much better than we had expected to see." One member purchased 4,500 pounds of Choice beef which will be served in Tokyo restaurants this month and next.

U.S. meat show

The Foreign Agricultural Service is following through the initial promotion work in finding customers in Japan with a trade show in the Tokyo Trade Center from September 24 to October 4. Japanese hotel and restaurant operators, meat specialists, and other interested tradesmen will see displays and demonstrations and sample various cuts of fresh chilled U.S. Choice and Prime beef. Several U.S. meat companies will have agents on hand to talk business.

CROPS AND MARKETS SHORTS

Weekly Report on Rotterdam Grain Prices

Between August 27 and September 3, most of the offer prices in Rotterdam remained unchanged. U.S. Dark Northern Spring increased 2 cents and U.S. Soft Red Winter decreased 2 cents. USSR 121 and Argentine prices were unquoted.

U.S. corn was down 1 cent; all others, unchanged.

Item	Sept. 3	Aug. 27	A year ago
	Dol. per bu.	*Dol. per bu.*	*Dol. per bu.*
Wheat:			
Canadian No. 2 Manitoba	2.02	2.02	2.08
USSR 121	(1)	1.99	(1)
U.S. No. 2 Dark Northern Spring, 14 percent	1.96	1.94	2.05
U.S. No. 2 Hard Winter, 14 percent	1.95	1.95	1.93
Argentine	(1)	(1)	(1)
U.S. No. 2 Soft Red Winter	1.75	1.77	1.68
Corn:			
U.S. No. 3 Yellow	1.20	1.21	1.42
Argentine Plate	1.43	1.43	1.62
South African White	1.39	1.39	(1)

[1] Not quoted.

Note: All quoted c.i.f. Rotterdam for 30- to 60-day delivery.

Record New Zealand Wheat Crop

The 1967-68 crop year set a new high for wheat production in New Zealand. The wheat harvest is reported at 14,897,000 bushels—almost 2 million above the previous high of 13 million, which was reached in 1889.

Other cereals showed no marked change in either area or yield. Output of oats fell slightly from the previous year, that of barley rose by 500,000 bushels, and that of corn was up slightly. Average yields were 48 bushels per acre for wheat, 65 for barley, 63 for oats, and 90 for corn. Only barley showed an improvement in yields over 1966-67.

Early in the harvest season the large size of the wheat crop caused concern; the New Zealand Wheat Board estimated a surplus of more than 1.5 million bushels. But bad weather at harvesttime greatly reduced the available quantity of wheat suitable for milling, and diversions to livestock feeding used most of the worrisome surplus. In fact, late in the season additional imports of foreign wheat became necessary to meet millers' demands.

Canada-Bulgaria Trade Pact Extended

Canada and Bulgaria agreed to continue the trade agreement granting most-favored-nation treatment by each country to the goods of the other for another 3 years, according to a Protocol signed April 26, 1967.

Announcement of the ratification of this Protocol, which extends the previous 3-year Canada-Bulgaria Trade Agreement initiated in 1963, was released on July 11, 1968. The agreement includes a Bulgarian undertaking to purchase 200,000 tons of Canadian wheat during the 3-year period. Under a similar 1966 agreement, no wheat was sold.

Australia's Seventh Record Rice Harvest

Excellent yields in spite of drought, shortage of irrigation water, and later lodging have brought Australia's 1968 rice crop to approximately 217,000 metric tons—an upward revision of an earlier estimate. This year's crop sets the seventh record in 7 consecutive years. Harvested from 76,000 acres, compared with 73,700 last year, the 1967-68 crop exceeds last year's harvest by 2.25 percent. The yield per acre this year is expected to exceed last year's world record.

The 1967 crop was valued at US$24.6 million and rice exports earned Australia US$16.8 million. Export potential this year is excellent.

Higher South African Dried Fruit Output

The largest raisin crop in recent years boosted 1968 dried fruit production in the Republic of South Africa to 18,450 short tons, 23 percent above the 1967 crop of 15,000 and 12 percent above that of 1966. Raisin production totaled 13,000 tons in 1968, 41 percent above the 1967 crop of 9,200 and 41 percent above the 1962-66 average. Production of dried peaches and pears also made substantial gains. Prunes were the only commodity falling below last season.

SOUTH AFRICAN DRIED FRUIT PRODUCTION

Item	1967	1968
	Short tons	*Short tons*
Apples	50	150
Apricots	1,100	1,100
Currants	700	700
Peaches	1,350	1,500
Pears	850	950
Prunes	1,750	1,050
Raisins	9,200	13,000
Total	15,000	18,450

GROWER RETURNS FOR SOUTH AFRICAN DRIED FRUIT

Item	1967	1968
	U.S. cents per pound	*U.S. cents per pound*
Prunes	15.4	18.8
Currants	17.1	17.1
Sultanas	10.4	10.1
Thompson Seedless	10.2	10.1
Bleached Sultanas	11.6	11.5
Other raisins	10.7	11.5

Greek Currant, Sultana Prices and Grants

Greece has announced grower security prices and subsidies for 1968 crop currants and sultanas. The 1968 crop program provides income support grants to growers and special financial assistance for the modernization of vine-

yards, improvement of drying facilities, equipment for handling the crop, and construction of storage facilities. Grower security prices are unchanged from last year.

The Greek Government is making $10.2 million available to cover the 1968 sultana programs and $10.7 million for the currant programs.

GREEK CURRANT, SULTANA PRICES AND GRANTS

Item	1967	1968
Grower security prices:	*U.S. cents*	*U.S. cents*
Sultanas:	*per lb.*	*per lb.*
Grade 1	11.8	11.8
Grade 2	11.0	11.0
Grade 4	10.6	10.6
Grade 5	9.8	9.8
Currants:		
Amalia, Trifilia basic grade	11.3	11.3
Grower income support grants:		
Sultanas	3.0	....
Currants	2.3	....

Nigeria Increases Cocoa Producer Prices

The Nigerian Western Region Marketing Board has increased prices to cocoa farmers for the 1968-69 season (October-September) to N£100 per long ton (U.S. 12.5¢ per lb.) for grade 1 beans, and N£85 per ton (10.6¢ per lb.) for grade 2 cocoa. The new prices are up N£5 per ton (0.625¢ per lb.) over those paid during the 1967-68 crop year. The Board will continue to bear the cost of transporting cocoa from the point of production to the port of export again this season.

West German Imports of Leaf Drop Sharply

West German import trade statistics for the first 5 months of 1968 show a very sharp drop in leaf imports compared with the first 5 months of 1967 and 1966. Total imports are down by about 20 percent and imports from the United States are not quite as large as usual.

WEST GERMAN IMPORTS OF UNMANUFACTURED TOBACCO

Item	January-May 1966	January-May 1967	January-May 1968
	Million pounds	*Million pounds*	*Million pounds*
Total	118	111	90
United States	36	38	20

Although the 1968 trade data are contrary to the pattern set in the first part of both 1967 and 1966, there are several factors that must be considered when analyzing these data, namely: (1) The longshoremen's strike in late 1966 caused the movement of an unusually large volume of tobacco in early 1967; (2) the introduction of the new turnover tax in Germany on January 1, 1968, caused abnormally high shipments in the last few months of 1967 (in an effort to avoid the higher levy) and consequently lowered shipments in the first part of this year; and, (3) some manufacturers, concerned about the effect of increases in both excise and retail prices on tobacco products, lowered their stock levels by reducing purchases of the 1967 U.S. crop.

The 5-month figures for 1968, then, are not indicative of any abrupt change in the use of U.S. leaf in West Germany and, as the following usage figures indicate, use of U.S. tobacco in West Germany has varied only slightly over the periods being compared:

	Million pounds	*Percent of total used*
January-April 1966	23	29
January-April 1967	22	30
January-April 1968	23	29

U.S. Cigarette Exports Down Slightly

U.S. exports of cigarettes in the first half of 1968, at 12,024 million pieces, were just slightly below the 12,101 million shipped out in the same period in 1967. The export value of 1968 shipments was $60.7 million, compared with $58.3 million in 1967, a 4-percent increase.

The direction of U.S. cigarette export trade altered only slightly from the pattern of the last 2 years. In 1968 Paraguay became the best market for cigarette exports, with Hong Kong, Spain, the Netherlands Antilles, and Kuwait following in order of importance.

U.S. EXPORTS OF CIGARETTES

Destination	January-June 1966	January-June 1967	January-June 1968	Change, 1968 from 1967
	Million pieces	*Million pieces*	*Million pieces*	*Percent*
Paraguay	688.1	677.6	1,366.7	+101.7
Hong Kong	1,139.7	1,209.0	1,158.6	— 4.2
Spain	954.1	897.8	812.6	— 9.5
Netherlands Antilles	689.3	702.5	785.9	+ 11.9
Kuwait	435.4	574.1	689.0	+ 20.0
Panama	331.4	337.7	471.0	+ 39.5
Germany, West	365.7	424.4	361.0	— 14.9
Italy	322.4	382.3	360.4	— 5.7
Colombia	6.3	8.0	320.8	....
Lebanon	256.1	264.6	286.4	+ 8.2
Singapore	269.4	267.6	280.1	+ 4.7
France	480.2	372.7	264.5	— 29.0
Australia	211.3	291.5	243.8	— 16.4
Denmark	266.1	206.3	209.6	+ 1.6
Netherlands	325.2	290.1	208.1	— 28.3
Switzerland	331.8	238.4	204.8	— 14.1
Ecuador	293.5	304.7	195.0	— 36.0
Mexico	74.4	143.2	185.7	+ 29.7
Yugoslavia	199.7	104.0	182.8	+ 75.8
Japan	143.5	256.1	179.2	— 30.0
Philippines	70.3	160.4	172.0	+ 7.2
United Kingdom	172.7	200.5	167.7	— 16.4
Morocco	177.1	330.6	153.5	— 53.6
Canary Islands	288.2	300.5	149.2	— 50.4
Malaysia	154.7	118.9	132.5	+ 11.4
Belgium-Luxembourg	230.3	231.2	122.8	— 46.9
Other	2,854.6	2,806.0	2,360.7	— 15.9
Total quantity	11,731.5	12,100.7	12,024.4	— .6
	1,000 U.S. dol.	*1,000 U.S. dol.*	*1,000 U.S. dol.*	*Percent*
Total value	54,103	58,343	60,711	+ 4.1

Bureau of the Census.

Canadian Cotton Consumption Down

Canadian cotton consumption (as measured by bale openings which include some rebaled waste) totaled 380,000 bales (480 lb. net) in the 11 months (August-June) of the 1967-68 season. This compares with offtake of 410,000 bales in the same period of 1966-67. Cotton consumption has declined

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because of a number of factors. Among these are a sharp increase in the use of synthetic fibers especially in blends with cotton, a high volume of textile imports, and some slowing of general economic activity.

Canadian trade statistics indicate that imports for the 9 months (August-April) totaled 288,000 bales, compared with 301,000 a year earlier. Imports for the entire 1967-68 season are estimated at around 400,000 bales, about the same as in 1966-67. The United States is the principal supplier of raw cotton to Canada. However, the recent scarcity of certain qualities of cotton in the U.S. supply and the resultant sharp rise in prices have caused the Canadian textile industry to turn to other countries for raw cotton. The USSR, in particular, has exported large quantities of cotton to Canada in the past 2 years. Quantities of cotton supplied during the period August-April, with comparable figures for 1966-67 in parentheses, by country of origin and in thousands of bales, are: United States 135 (226), USSR 81 (34), Mexico 60 (15), and Israel 7 (0).

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Locusts Swarm in Africa, Middle East, and Southwest Asia

The worst threat for many years of locusts in crop-destroying concentrations is developing in a belt across sub-Saharan Africa, the Arabian Peninsula, and southwestern Asia. Swarms of breeding and egg-laying adults have been sighted as far west as Mauritania, and as far south as Nigeria in western Africa. Eastern Africa has been seriously affected, and the Sudan, Ethiopia, and Somalia have critically high locust populations. Across the Red Sea, Saudi Arabia has had heavy infestations, and swarms have appeared in Jordan, Syria, Iraq, and Iran. Locust attacks in southern Iran and in Saudi Arabia have been the most serious of those in the Middle East. In Asia, West Pakistan and India have been invaded by several swarms, and scattered swarms have occurred in Afghanistan.

So far the summer and early fall locust swarms have not reached plague proportions, though they have been serious enough to warrant active anti-locust campaigns in the Sudan, Ethiopia, Saudi Arabia, Iran, Pakistan, and India. At present, situations are gravest in the Sudan and Ethiopia; the infestation in Saudi Arabia, which was the largest in the Middle East, has lessened, at least for the time being, because of control measures and the movement of locust swarms out of the area with the prevailing winds.

Locust-control measures differ from country to country. Jordan and the United Arab Republic have reportedly successfully controlled the locusts within their borders, as has Syria. Iran has taken active measures, which appear to be successful, to fight the pest. Iran received aid from the Soviet Union and the Food and Agriculture Organization (FAO) of the United Nations. Iran is now helping Pakistan by lending spraying planes and flight crews while the FAO is providing Pakistan with insecticide. India has an active program of spraying locust concentrations from the air and is reported to have the pest under control.

In Africa, Ethiopia, Afars and Issas Territory, the Somali Republic, Kenya, Uganda, and Tanzania belong to the Desert Locust Control Organization for East Africa and coordinate efforts to control locusts. Ethiopia, where the major fight is being waged at present, is receiving aid from the FAO, the United States, and Russia. The Soviet Union is contributing 50 tons of pesticide and the United States $200,000 for supplies and new equipment. The Sudan, in addition to its internal preparations for killing locusts, is receiving $20,000 from the FAO to buy insecticides.

In spite of present control measures, the outlook for 1969 may be even larger locust swarms because of the large number of insects that reached adulthood and laid eggs this year. Unless there is an unusually dry winter and spring in critical areas such as the Sudan and Saudi Arabia, a locust population explosion can be expected.

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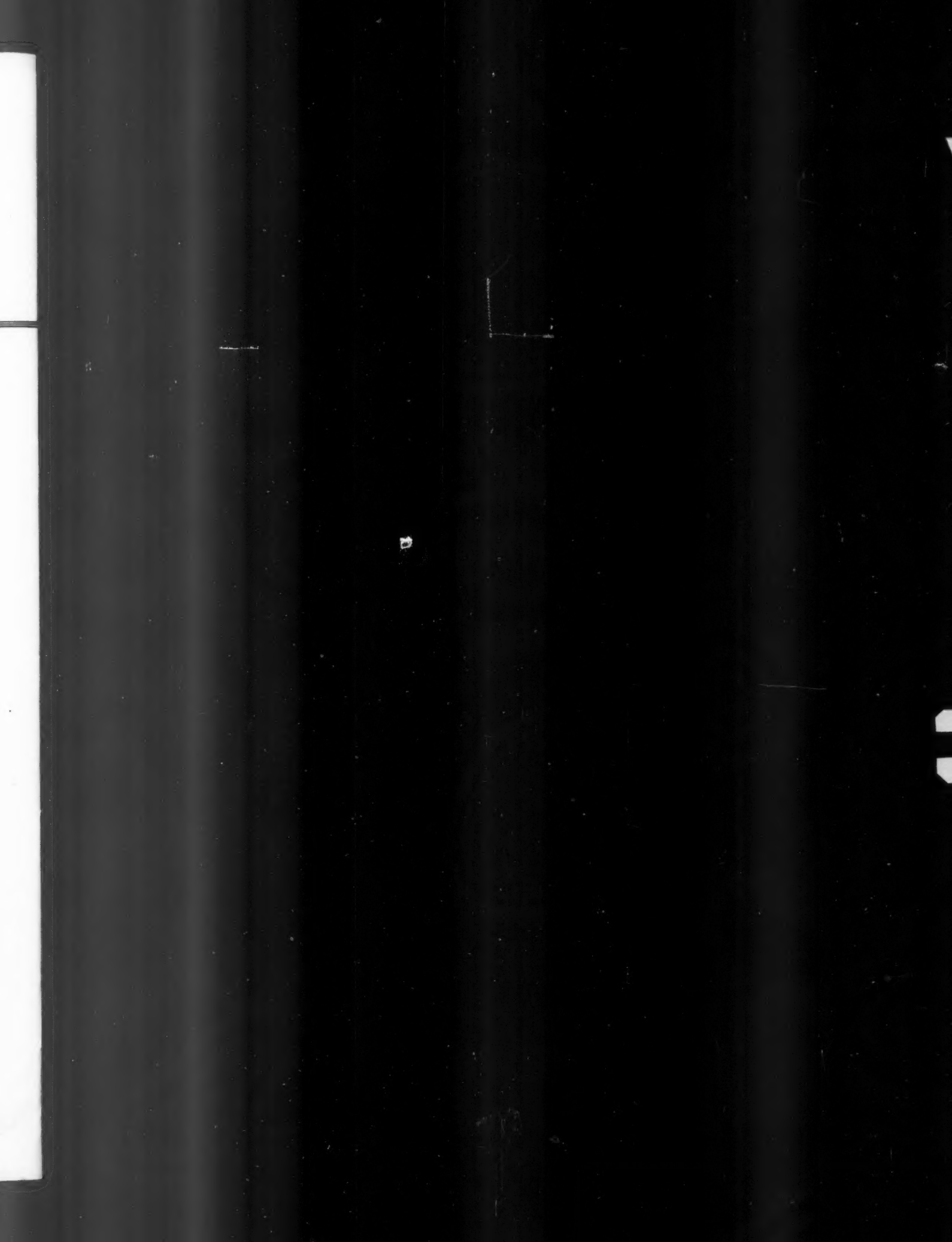
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